

## ABSTRACT

The present invention relates to novel, specifically neuronal expressed proteins with tryptophane hydroxylase activity, nucleic acid sequences, recombinant nucleic acid molecules containing these nucleic acid sequences or vectors containing these nucleic acid sequences or the recombinant nucleic acid molecules encoding for a neuronal tryptophane hydroxylase.

The invention also relates to transgenic organisms containing these nucleic acid sequences, the recombinant nucleic acid molecules or the above cited vectors. The invention moreover refers to mono- or polyclonal antibodies directed against the isolated proteins.

Furthermore, the invention relates to the use of these nucleic acid sequences and proteins for diagnosis, predisposition, therapy and monitoring of neuronal diseases. Possible fields of application among others are medicine and the pharmaceutical industry.